

PGY-PCleGen3-PA

PCIe Protocol Analyzer



The PGY-PCleGen3-PA is a PCIe Protocol Analyzer that supports protocol analysis up to PCIe Gen3 speeds. PCIe design and test engineers can easily capture and record traces at 2.5, 5.0 & 8 GT/s at specific event and obtain error report instantaneously at affordable price. This enables the design and test engineers to reduce the development time and address the time to market needs. PCIe Gen3 data is captured using interposers between the root complex and end point (Device under test). PCIe Gen3 interposers support. PCIe Gen3 Protocol Analyzer's software provides complete decode and error analysis of Transaction Layer Packets (TLPs), data link Layer Packets and with LTSSM information.

PGY-PCleGen3-PA software provides powerful protocol decode capabilities enabling engineers to quickly identify the problems in protocol layer. Software is capable of decoding the packets and provide error analysis. Different views of Protocol layer enables the user to quickly identify the problems in protocol. Power search, filter-in, filter-out features simplify debug activity.

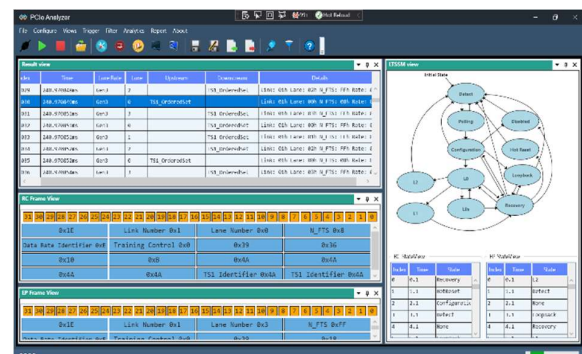
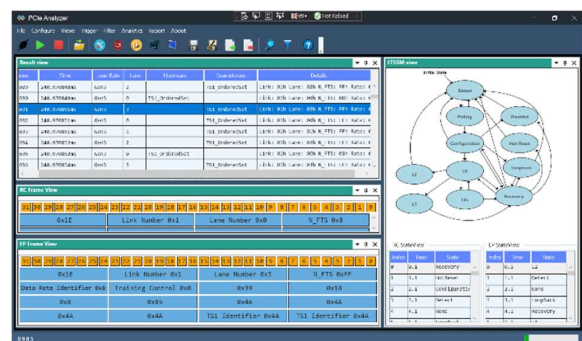
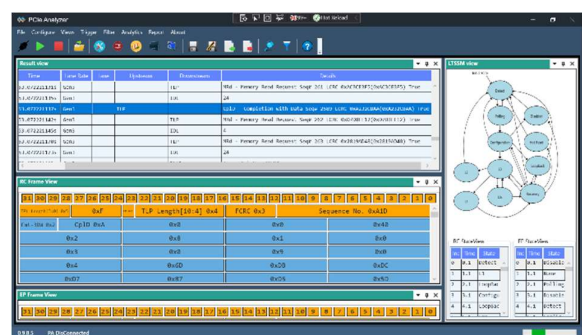
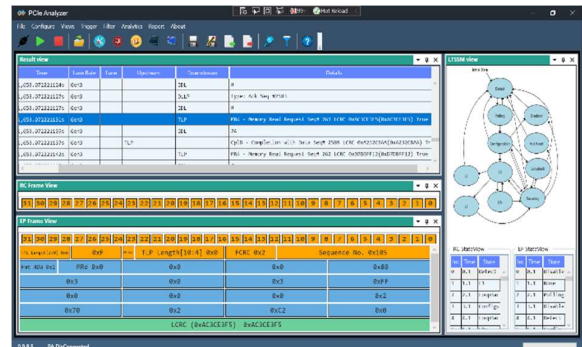
PGY-PCleGen3-PA provides sophisticated protocol trigger features which allows trigger on specific protocol event and capturing the data of interest. Auto, simple and advanced trigger features capture PCIe bus activity, specific event and monitor multiple trigger conditions and capture data around it.

Key features

- ❖ PCIe Gen1/2/3 Protocol Decode and Analysis
- ❖ Currently supports four lane PCIe Gen1/2/3 Bus
- ❖ Passive M.2 Connector interposer for speeds up to PCIe Gen3.
- ❖ Optional solder down probe tips for four lanes for speeds up to PCIe Gen3 (8Gbps)-
- ❖ Protocol Decoding of TS1, TS2, TLP, DLLP Packets.
- ❖ Hardware based protocol packet TS1, TS2 and IDLE filter capabilities
- ❖ Software based search, filter-in and filter-out capabilities.
- ❖ Hardware based protocol aware trigger capabilities
- ❖ Advanced multi-level if-then-else if trigger capabilities
- ❖ Standard buffer size of 16GB and expandable to 64GB combined for TX and RX.
- ❖ Trigger based on TS1, TS2, TLP and DLLP Packet content.
- ❖ Detailed view of each TLP/DLLP with all field values
- ❖ LTSSM Analysis for PCIe protocol traffic
- ❖ Memory segmentation with each segment with different trigger condition¹.
- ❖ Trigger out signal at trigger event allows the triggering of other instruments such as an oscilloscope.
- ❖ Interface to host system using USB 3.0.
- ❖ Decoded data packets can be exported to .txt file for further analysis.
- ❖ PGY Protocol Analyzer is light weight and can be deployed for on-site/ field tests.
- ❖ Field upgradeable enables the unit to easy maintain for latest feature set

Decode View

Index	Time	Lane Rate	Lane	Upstream	Downstream	Details
19076307	2.8925s	Gen3	2		SKP_OrderedSet	
19076308	2.8925s	Gen3	3		SKP_OrderedSet	
19076309	2.8925s	Gen3			IDL	
19076310	2.8925s	Gen3		TLP		CfgHdr - Configuration Write Type 0 Seq# 1
19076311	2.8925s	Gen3		IDL		56
19076312	2.8925s	Gen3		DLLP		Type: ACK
19076313	2.8925s	Gen3		IDL		48
19076314	2.8925s	Gen3		TLP		Co# - Completion without Data Seq# 1
19076315	2.8925s	Gen3		DLLP		Type: UpdateFC-HP
19076316	2.8925s	Gen3		IDL		48
19076317	2.8925s	Gen3		DLLP		Type: ACK
19076318	2.8925s	Gen3		IDL		48
19076319	2.8925s	Gen3		DLLP		Type: ACK
19076320	2.8925s	Gen3		IDL		56
19076321	2.8925s	Gen3		DLLP		Type: UpdateFC-Co#
19076322	2.8925s	Gen3		IDL		56
19076323	2.8925s	Gen3		TLP		CfgHdr - Configuration Read Type 0 Seq# 2
19076324	2.8925s	Gen3		IDL		76
19076325	2.8925s	Gen3		TLP		CoID - Completion with Data Seq# 2
19076326	2.8925s	Gen3		DLLP		Type: UpdateFC-HP
19076327	2.8925s	Gen3		IDL		48
19076328	2.8925s	Gen3		IDL		Time: 48s



1. Will be supported in our future release

Specifications	
Data Rates Supported	PCIe Gen1, Gen2, Gen 3
Link Width	16 lanes
Probes	Solder Down Active Probes for speeds up to PCIe Gen3. (Optional)
Protocol Decode	TS1, TS2, TLP, DLLP, SDS, IDLE, EIOS, EIEOS, FTS, SKP
Trace Capture Size	Supports Continuous streaming of Protocol data to Host computer SSD/HDD. And Post Capture up to buffer size.
Trigger	Based on TS1, TS2, TLP, DLLP.
Connectors	Interface for Active probes. Trigger in/out SMA connectors.
Interface for Host Computer	USB 3.0.
Host Computer Requirements	Processor: Intel i7 10 th Generation or better (Equivalent) Operating System: Windows 7/8.0/8.1/10 64bit OS. RAM: minimum 16GB but the product would give a faster response for 32GB/64GB/more. Storage: 256GB SSD or more (minimum storage capacity of 1GB should be available in the hard disk drive. User can use more storage based on trace storage requirement.) Display resolution: 1024X768. Interface: Host computer should support USB 3.0 interface.
Dimension (W x H x D)	(W x H x D) (20.5X5X25) cms.
Weight	Approx. 4 kg.
Power Requirement	12V, 6A DC Power Supply (AC/DC Supplied along with Analyzer).

Ordering information:

PGY-PCIeGen3-PA: PCIe Gen3 Protocol Analyzer

Note: Unit by default supports up to Gen 3 data rates..

(Shipment includes Hardware, software CD, One M.2 Interposer, USB 3.0 Cable and Power adapter)

Optional

PGY-INT-CEM: Prodigy CEM Interposer

Warranty:

12 Months of Hardware Warranty & Software upgrade Support

(Accessories, Interposer, Probes are covered for a 90 Days warranty only against any manufacturing defects)

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About Prodigy Technovations Pvt Ltd

Prodigy Technovations is the leading provider of innovative protocol analysis solutions for mainstream and emerging technologies. We provide Protocol Decode, and PHY layer testing solutions on Test & Measurements equipment's. The company's ongoing efforts include successful implementation of innovative and comprehensive protocol Analysis solutions using latest hardware technologies.